**Introduction**

- 79% of ED Patients present with pain.
- Managing pain is an important aspect of ED care.
- There is little information quantifying:
  - Pain severity
  - Patient improvement
  - Return to previous function following ED discharge.

**Aims**

- Describe how patients’ pain was assessed and treated in the ED.
- Investigate how patients with unresolved acute pain at ED discharge manage their pain for the 7-days immediately following ED discharge.

**Design**

- Prospective, descriptive pilot-study.
- IRB approval was granted from the study hospital and Illinois State University.

**Sample**

Level II Trauma Center – Central Illinois
- 98 Patients approached, 25 (26%) Enrolled

Inclusion Criteria:
- ≥ 18 presenting with an acute pain complaint
- Moderate (4-6) or Severe (7-10) pain intensity score at ED Discharge

12 (48%) Completed Entire 7-day Study
- 8 (67%) Female
- 12 (100%) Caucasian
- Age 39.33 ± 15.9 years
- Discharge Pain Intensity (0-10) = 7.25 ± 1.3

**Medications/Interventions Received in ED**
- Hydromorphone (Dilaudid) (N=6)
- Ketorolac (Toradol) (N=4)
- Hydrocodone/acetaminophen (Norco) (N=3)
- Morphine (N=2)
- Fentanyl (Duragesic) (N=1)
- Non-Pharmacological (ice/elevation) (N=5)
- No interventions (N=4)
- 50% received a prescription upon discharge

**Participants spent:**
- 192 (± 86) minutes in the ED
- Range = 60-351 minutes

**Procedures**

**At ED Discharge:**
- Study Expectations Explained
- Demographics & Pain Variables Collected

**For 7 Days Post ED Discharge:**
- Complete Daily Pain Diary Including:
  - Pain Intensity Score
  - Pain Satisfaction Score
- Pharmacological and Non-Pharmacological Interventions

**8 Days After ED Discharge:**
- Complete PROMIS Questionnaires:
  - Global Health
  - Pain Intensity
  - Pain Behavior
  - Pain Interference
  - Sleep Interference

**RESULTS**

**Pain Intensity Scores at ED Discharge and Each Day for 7 Days**

**Pain Behavior, Pain Interference, & Sleep Disturbance Scores**

**Overall Health 3.33 ± 0.99**
(1=poor, 5=excellent)

**Fatigue 2.83 ± 0.58**
(1=mild, 5=very severe)

**Discussion**

- ED patients are discharged with unresolved pain.
- Participants exhibited more pain behaviors and sleep disturbances plus pain interfered with their daily activities to a greater degree than the general public.
- Higher pain intensity scores strongly correlated with increased sleep disturbance.
- Participants reporting higher fatigue scores indicated they were less physically active and experienced higher pain scores.

**Limitations**

- This was a pilot-study.
- We were limited by the Hospital IRB to enrolling patients at discharge after the nursing staff informed the potential participant of the research study.
- Reasons for not enrolling included:
  - Waited in the ED too long
  - Have to pick up children
  - Not available for follow-up
- Participants completing the entire study (N=12) limits the study findings.
- No African Americans completed the study.
- We were unable to enroll Hispanic participants.
- We experienced several follow-up challenges:
  - Participants refused follow-up visits.
  - 13 (52%) participants did not answer phone calls thereby follow-up visits could not take place.

**Future Research**

- A larger sample size is needed, powered to demonstrate the relationships between and among study variables, to sufficiently describe how patients self-manage unresolved pain after ED discharge.
- Explore patients’ analgesic adherence after ED discharge.

**Implications for Emergency Nursing**

Demonstrating the relationships between and among demographic and pain variables may lead to interventions designed to quickly alleviate decreased functional status so patients may quickly return to their previous health status.

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